

REMARKS/ARGUMENTS

Claims 25-67 are active in this application. The claims have been amended for clarity. Support for Claims 49-67 is founding Claims 25, 30, 31, 33-36, 38, 39, 41, 42, 44, and 45 as well as the specification as originally filed. No new matter is added.

In the Office Action, the Examiner has rejected Claims 25, 26, 28, 30, 32, 33, 35 and 39-45 under 35 U.S.C. § 102(b) over U.S. 4,737,265 (“Merchant”); U.S. 4,839,167 (“Yamamoto”); or U.S. 5,338,352 (“Breneman”); and Claims 25, 26, 28-30, 32, 33, 36, and 39-45 under 35 U.S.C. § 102(b) over JP61245835 (“Ezaki”); U.S. 4,274,977 (“Koerner”); U.S. 4,559,226 (“Fogel”); or EP 1055694 (“Yabuta”). These rejections are not tenable because none of the publications describe the claimed dispersion in which the aqueous phase contains a polymer of water-soluble units and LCST units, which has a demixing temperature of 5 to 40°C and where the polymer is present in the aqueous phase such that the gel point is from 5 to 40°C.

It is by now well settled that the burden of establishing a *prima facie* case of anticipation resides with the Patent and Trademark Office. *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984), quoting *In re Warner*, 379 F.2d 1011, 1016, 154 USPQ 173, 177 (CCPA 1967).

As noted by the Board of Patent Appeals and Interferences in *Ex parte Skinner*, 2 USPQ2d 1788, before an Examiner can switch the burden of proof of showing non-inherency to the applicant, the Examiner must provide some evidence or scientific reasoning to establish the reasonableness of the Examiner’s belief that the claimed limitations are an inherent characteristic of the prior art. In this case, the Examiner has provided no such evidence.

Nonetheless, the failure of each cited publication to describe a polymer of water-soluble units and LCST units are set forth in detail below:

Merchant describes a blend of deoilers and demulsifiers (col. 3, lines 39-50) in which the water-soluble demulsifiers contain hydrophilic and hydrophobic (“lipophilic”) groups (col. 5, lines 33-66 and col. 6, lines 33-49). However, these compounds in Merchant are not a polymer of water-soluble units and LCST units required in the claimed dispersion.

Breneman describes an organommodified silicone emulsifier (col. 2, line 13) in which heating and agitation are required to form an oil-in-water emulsion (col. 3, lines 34-35).

Breneman also describes a polyether modified polysiloxane, which is a copolymer of hydrophilic and hydrophobic monomers. These polymers do not contain water-soluble units and LCST units as in the claimed dispersion.

Yamamoto describes hair care products with an emulsion containing a hair fixative polymer which is water soluble (col. 2, line 10-23 and col. 3, lines 45-46) and can be one of several polymers listed in col. 3, lines 51-63 none of which are a polymer of water-soluble units and LCST units in the claimed dispersion. For example, in col. 3, line 51-53 of Yamamoto, a polyvinylpyrrolidone compound such as copolymer of vinylpyrrolidone and vinyl acetate is described. Both vinylpyrrolidone and vinyl acetate monomers form water-soluble units (see page 9, line 29 through page 11, line 13 of the present application) but Yamamoto does not describe a polymer with LCST units.

Ezaki describes a nonionic surfactant with a specific cloud point. Ezaki does not describe any polymer with water-soluble and LCST units as required in the present claims.

Koerner describes a water soluble emulsifier (col. 2, lines 13-18) and also describes a polyoxyethylene-polyoxypropylenemethylpolysiloxane (col. 6, lines 24-28 and Example 1 in cols. 5-6). However, these emulsifiers and polymers are not a polymer of water-soluble units and LCST units in the claimed dispersion. Furthermore, while Koerner describes additional polymers in the Examples, all of these polymers have only LCST-type units.

Fogel describes cosmetic emulsions (col. 1, lines 10-13) with alkoxylate esters with a cloud point of less than 15°C (col. 2, lines 40-64 and col. 4, lines 46-48). However, based on the structure of the alkoxylate ester in col. 2 Fogel, it is clear that the alkoxylate ester does not contain both LCST and water-soluble units as in the polymer present in the claimed dispersion.

Yabuta describes an aqueous solution with a water-soluble polymer (page 3, ¶ 14) and provide several examples on page 11, ¶ 97 of the polymer, none of which contain water-soluble units and units with an LCST as in the polymer present in the claimed dispersion.

In view of the above, it is clear that none of the cited publications describe a polymer of water-soluble units and LCST units as in the present claims. Therefore, Applicants request withdrawal of the rejections under 35 U.S.C. § 102(b).

The objection to Claim 30 and the rejection of Claims 29, 30, 33, 36, 39, 41, 42, 44, and 45 under 35 U.S.C. § 112, second paragraph have been addressed by amendment.

Applicants request allowance of this application. Early notice of such allowance is also requested.

Respectfully submitted,

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